My Mortise ‘Machine’

by Joanne Adler in Pt. Pleasant, PA

Dedicated mortising machines are very popular now and there are many out there and which ones are good choices can present quite a dilemma. I would love to have one, since chopping mortises by hand is not my best skill, nor am I very quick at it. But a mortise machine is not in the budget right now. For the holidays I had wanted to make some plant stands for some friends (and one for my mother’s birthday—she got the *prototype* last Fall and loved it). I had seen them in an old magazine (**Woodsmith**, I think). That plan called for loose mortise and tenon joints and to make them, the magazine also printed a plan for a mortise jig for a router. Hmmmm. I have a router…

The jig is basically a box with a top with movable stops. You make a new plexi rectangular base for the router. There are two big holes in front to allow for clamps to hold the workpieces. With this jig you can rout mortises in flat grain or endgrain and even on angles. You can probably make a jig even more precise and figure out how to make an extension so you can use stops for the workpieces to speed up production. If you’re paranoid like me, you’ll draw out every mortise on the wood.

Here’s the full jig and what the top looks like (no, this is not an ad for Festool—I also have a Bosch router, but the Festool has better dust collection and sits politely without tipping over when connected to a vac hose)

And here’s underneath—you can see a U-shaped bracket that helps hold a horizontal piece under the top. The other bracket is for vertical pieces and mortising endgrain.

The blocks you see in the first and second pictures slide on runners. You make a rectangular plate for the bottom of the router and it goes in the space between the four blocks. You adjust them so that you can move the router left to right (or front to back) to rout the mortise. They serve as start and stop blocks for the rectangular oversized router base. For the mortises for this project, I kept the front and back blocks snug to the base and had the left and right blocks set for the distance of the mortise, based on the width of the router bit.

The plywood at the top is the test piece I used to cut the mortise you see in the second picture. The big U-shaped bracket with the slits holds the work piece up under the top, at the hole. The clamp holds it against the box so it doesn't move forward.

Here are some of the legs with multiple mortises in the long grain. I would like to figure out a way to make extensions with adjustable stops to make doing long pieces easier.

With the vac hooked up to the router, here’s my **favorite** thing about this jig—very little mess!

I forgot to shoot a picture of the little tenons I cut, but I took one long piece of stock, rounded all edges with a router or plane, and cross cut little, loose tenons. Here's how a stand came together, before the top was tiled:

The original stand I saw in the magazine called for one big tile in the top. Nice, but a bit boring. My good friend, Bebe, is a potter and makes tiles (among other wonderful things). She tiled the tops for me. We put a stock 4" tile in the center and she used little ones around the outside to make these special gifts for my band ("No Windows").

They came out great and were a huge hit as presents. Of course, no one wants to cover up any of the tiles by putting a plant on top—they've put vases or other small works of art. Fun project. Cool jig.

Here's the side view someone asked for. The "ears" on the bottom of the box are for clamping the unit to a bench. I think one of the first pictures shows that.

I suppose, as someone else suggested, you could do this on a router table, but that might make me nervous. I've thought I

might build a horizontal router table that would make routing mortises easier, but this looked like a fun project, so I built this instead.

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